

## INFORMATION REPORT

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## CENTRAL INTELLIGENCE AGENCY

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50X1-HUM

COUNTRY Hungary

REPORT

SUBJECT Hungarian E-2 Fire Control Equipment

DATE DISTR.

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2

REFERENCES

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SOURCE EVALUATIONS ARE DEFINITIVE. APPRAISAL OF CONTENT IS TENTATIVE.

1. Among other apparatus, the Gamma Optical Works of Fehervari ut 58, Budapest 11, were manufacturing in September 1959 the so-called E-2 fire control equipment for anti-aircraft weapons. Stationed at the plant as a technical adviser from the Ministry of Defense was Lieutenant Colonel Laszlo Horvath.
2. The E-2 apparatus (the "E" allegedly stands for the Hungarian word erkek, meaning value) was developed by one Peter Daru from a German World War II guidance and fire control device. The apparatus is mounted on a trailer and protected by tarpaulins stretched over a steel rod frame. A transformer provides it with 380-volt current from outside sources.
3. The apparatus measures 1500 x 1200 x 1500 millimeters and weighs approximately 300 kilograms. Outside temperatures from 60° C to minus 45° C do not affect its performance. It is equipped with a short wave apparatus of 100 to 120 tubes of Soviet and Hungarian manufacture. It operates at 500 cycles per second and has a bearing range of 10,000 meters altitude up to 90° elevation.
4. The E-2 is fitted with seven devices:
  - a. V mechanism (V standing for velocity);
  - b.  $\beta$  mechanism (angle);
  - c. i. mechanism (time);
  - d.  $\Sigma$  mechanism (angle deviation, resulting from  $\beta_1 + \beta_2$ );
  - e.  $\beta_1$  mechanism (angle computer?);

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STATE	X ARMY	X NAVY	X AIR	X FBI	AEC				
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- f. *B<sub>2</sub>* mechanism (angle computer?);
- g. D mechanism (consists of three parts and calculates height, spiral (?) and distance).
5. The several devices are contained in the center of the equipment and are connected by cog wheels to an axle. In addition there are two potentiometers, a resolver (? - Hungarian term), and a time interval recorder. The entirety is run by electric motors. At the front end of the equipment are measuring devices and scales.
6. The E-2 is not set up in the middle of an AA battery but is kept off to one side. The guns are connected by way of a small distributor box. Interior and exterior ballistic factors can be calculated into the E-2. It can also be used in connection with radar and optical devices.
7. Production of the E-2 began at the Gamma works at the beginning of 1959 and five sets were scheduled for completion by the end of 1959. There was no mass production as of September 1959, but the plant was in the process of being set up for such production.

Attachments:

[redacted] two pages of sketches of the E-2      50X1-HUM  
fire control equipment.

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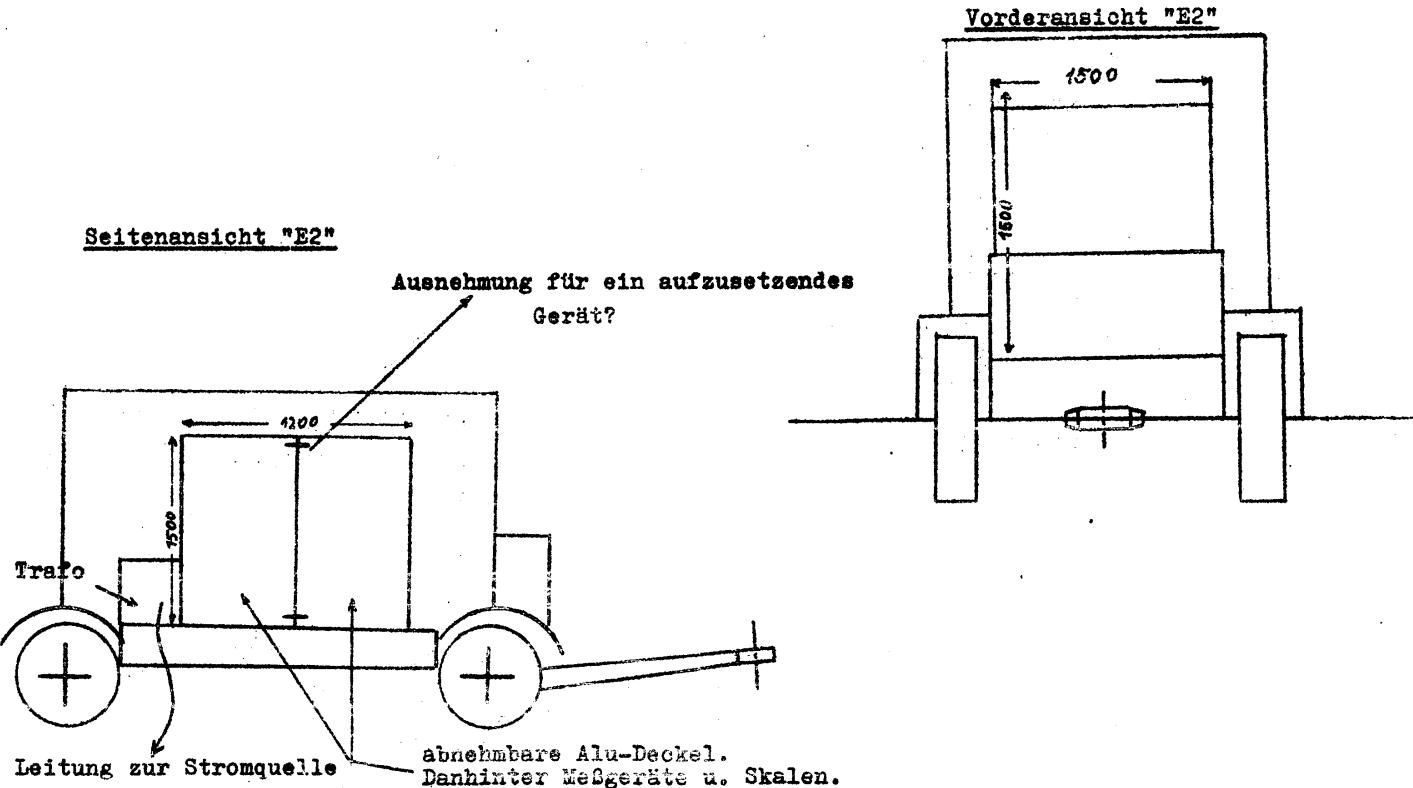
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Anlage 1:

Vorder- u. Seitenansicht. "E2"



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Anlage 2 :

Mechanismen "E2"

